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NOTES OF OPHTHALMIC PRACTICE.—NO. I.

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TARSORAPHY.

MR. B., aged 60, a resident of New Hampshire, came to consult me a few weeks since. Last July his head was caught between a granite post and a heavily-loaded cart, the result being that the jaw was broken in two places, and the right side of the face completely paralyzed. The vision of the left eye was entirely destroyed. At the time of his visit to me the facial paralysis was less complete than before, but his principal source of trouble was his inability to close his right eye, owing to the loss of power in the orbicularis.

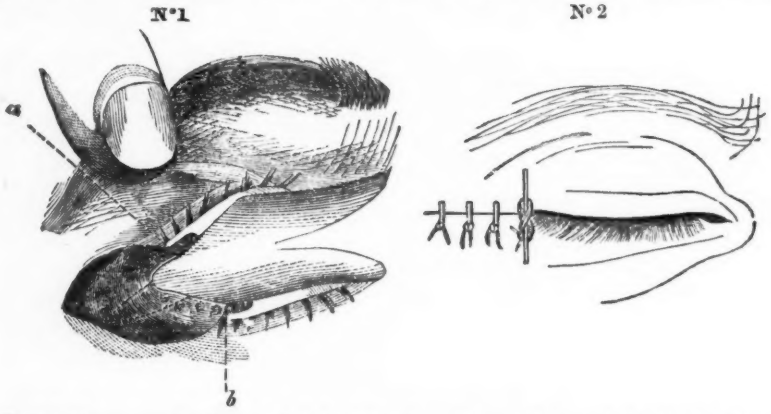
The *left* eye was externally normal and retained its normal powers of motion. The pupil acted sympathetically, but dilated and remained fixed when the other was covered. No perception of light, either qualitative or quantitative. The ophthalmoscope revealed commencing white atrophy of the optic nerve entrance.

The vision of the *right* eye remained nearly unimpaired, being affected only by a slight superficial ulceration of the lower part of the cornea, consequent on continued exposure to the air. The upper lid could be raised with ease, but was obliged to be brought down with the finger whenever the patient wished to close the eye, its unaided descent being very slight. The lower lid, without being everted, had fallen some distance below its usual level, and remained at least two lines below the upper, when this had been brought down as far as possible, leaving the globe uncovered to this extent. The conjunctiva, both of lids and globe, was reddened and somewhat inflamed. There was almost constant pain in the ball of the eye, and the ulceration of the cornea was fast progressing. The desire of the patient to be relieved from this pitiable condition was naturally excessive.

Two principal operations suggested themselves, the one being the removal of a V-shaped piece from the centre of the lid, the

other the removal of a similarly shaped piece from the external commissure, and the diminution of the palpebral aperture by uniting the edges of the wound. The first has long been the standard method; it is open, however, to several objections. The irregular shape of the edge of the lid at the point of union is apt to interfere with the proper passage of the tears; the main difficulty, however, is that this operation does nothing towards raising the outer commissure, and, in the case of prominent eyes, the lid, shortened as it is, is apt to hug closely the lower part of the bulb and prevent the closure of the eye.

The other operation appeared open to neither of these objections, and was accordingly performed. The patient having been well etherized, and the external commissure of the lids raised from the bulb and supported over a blade of horn, a lance-shaped knife was passed in, just at the angle of the lids, over the tarso-orbital fascia, and the integument thus raised and separated from the subjacent structures over a surface stretching some five lines back from the commissure. The same splitting process was carried forward into the lids themselves, the hair-bulbs being separated from the Meibomian glands for a distance of about four lines from the angle of the lids



to the lines marked *a* and *b* in Fig. 1. From the point where this dissection ceased, the inner edge of each lid was lightly pared about three quarters of a line farther on, but behind the eyelashes. Commencing from the lines marked *a* and *b* on the upper and lower lids respectively, vertical incisions were made through the integument of the lid down to the cartilage, and these cuts carried downward and forward in a direction parallel to the edge of the lid, till they met at a point on a level with the angle of the lids, and some five lines from it. The integument, including the eyelashes, embraced between these incisions was now dissected away, and the edges of the wound united by four sutures, as in Fig. 2, a twisted suture being taken anteriorly. Care was taken, in passing

the pin for the first suture, to approximate the points where the incision in each lid had commenced, more having been removed below than above, in order to raise the lower lid into a proper position. The point at which these incisions should be commenced, and the amount of skin to be removed, must vary naturally according to the circumstances of each individual case and the effect designed to be produced.

Tarsoraphy, as the above operation has been called since its first introduction by Walther, owes the prominence it has obtained in modern ophthalmic surgery to Graefe, who (*Archiv*, Vol. IV., part 2, p. 201) describes the operation and gives the indications for its performance. It is applicable to those cases where a considerable lengthening of the lid, together with a thinning and loss of tone of the cartilage, has taken place; in marked cases of paralytic ectropion; in cases of ectropion of the lower lid dependent on cicatrices or traumatic solutions of continuity of the external commissure; in ectropion of the lower lid caused by cicatrices of the external covering of the lids or neighboring parts; and in exophthalmus. The method of performing the operation in the above case differs somewhat from that given by Graefe, and is due to Stellwag von Carion, from whose book* are also taken the two engravings.

The sutures were removed on the third day. Union by first intention had taken place, the lower lid was raised into a normal position, and with the aid of the finger the upper lid could be closely approximated to it. The ulceration of the cornea had nearly, and the pain entirely disappeared. The patient shortly left for home, and as he promised to write me in the event of anything going wrong, I have no doubt but that the relief continues to be complete.

Graefe's "Measurer of Refraction,"

An Instrument designed for at once expressing the Strength of the Glass that will enable a given Patient to see distant Objects with distinctness.

With this instrument the patient is enabled to himself designate the glass he requires, without going through with the routine test of trying one lens after another. And the conscript who seeks to escape active service on the ground of myopia, if tested by means of this, must either at once conclusively establish the truth of his statement, or as quickly give results so inconsistent as to stamp him as an impostor.

An eye, possessing a normal power of refraction, and healthy in other respects, sees distant objects with distinctness. Neither convex nor concave glasses improve vision, because such an eye under such circumstances is adapted for receiving parallel, and not convergent

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* Manual of Practical Ophthalmology. Vienna. 1861.

or divergent rays. A hypermetropic eye sees distant objects distinctly by the aid of a convex glass, and the strongest glass that fulfils this condition expresses the grade of the hypermetropia. And the weakest concave glass that does as much for a myopic eye shows the amount of myopia present.

These are points that must be ascertained in order to make a satisfactory analysis of any case of the kind. And since the choice of glasses has definitely passed from the hands of the optician into those of the physician, it has become customary for the latter to provide himself with a "spectacle case," containing, besides colored glasses and prisms, a large collection of the various convex and concave lenses, ranging from $\frac{1}{2}$ to $\frac{1}{60}$. Trials must be made with these glasses until the true state of the refraction is ascertained. But in actual practice this process, though reasonably sure, is mechanical and monotonous to a degree, and frequently demands considerable time. It becomes sometimes necessary to go through with a long series of glasses more than once before the patient can make up his mind, the interval consumed in removing one pair of glasses from before his eyes and adjusting another, proving—especially in hypermetropia—a disturbing element of some importance. Some delay, too, is occasioned by the necessity of continually polishing the glasses as they become dimmed by frequent contact with the hand; and the danger of misplacement in a box containing more than a hundred different glasses is considerable, and renders constant watchfulness necessary.

To shorten the process and do away with these inconveniences, Prof. von Graefe has imagined a "measurer of refraction." It consists of two tubes, the one sliding within the other by means of a screw. The inner tube contains a convex glass and the outer a concave, the whole affair being nothing more or less than a single-barrelled opera glass, on a large scale. The outer surface of the inner tube is appropriately divided off, and each division numbered; the extent to which this inner tube is screwed out thus showing the amount of myopia or hypermetropia present in a given case, as well as the glass required to correct it. It should be mentioned here that myopia and hypermetropia are, in the present form of the instrument, determined by separate eye-pieces. These, however, by a simple contrivance, can be changed without removing the eye of the patient from the aperture. The whole affair is mounted on a stand with a firm base, and can be raised or lowered at pleasure, as well as directed at any angle.

I have thus far employed the instrument on the letters of Snellen or Dyer as test objects, using first the one and then the other, when the eyes are examined each for itself. The management of the screw is left to the patient himself, he being simply requested to turn it until the maximum of distinctness is attained.

The instrument has been in my possession but a few weeks, but

even that short period has sufficed to show me its great practical usefulness. Its accuracy, especially in hypermetropia, is all that could be reasonably expected.

Professor von Graefe justly alludes to its value in cases of astigmatism. Few practitioners who have had occasion to examine one of these cases, but must have been struck with the large amount of time necessarily consumed in ascertaining the refraction of the eye in the meridians of greatest and least corneal curvature, and in setting the various convex and concave glasses in and removing them from the stenopaic apparatus. All this is now vastly simplified. A metallic cap, furnished with a narrow slit, fits on over the eye-piece of the instrument. The meridian of greatest curvature having been ascertained in the usual manner, the slit is brought into the proper position and the refraction in that meridian ascertained. The slit is then turned at right angles to its former position and the process repeated. The amount of astigmatism is thus directly ascertained. I should mention that I found it necessary to considerably reduce the width of the slit as I received it from the makers.

The instrument is made by Paetz & Flohr, of Berlin.

TWO CASES OF CUTANEOUS SYPHILIS TREATED BY MERCURIAL INUNCTION AFTER LONG-CONTINUED AND INEFFECTUAL USE OF IODIDE OF POTASSIUM.

[Read before the Boston Society for Medical Observation, and communicated for the Boston Medical and Surgical Journal.]

By James C. White, M.D.

In December, 1862, Dr. J. requested me to visit a woman, whom he described as one of the most frightful objects he had ever seen. She was found lying in a dark and dirty room in Beach St., miserably clad, and presenting a most pitiful appearance. Her previous history was briefly as follows. She had formerly been a servant in the family of a lady, who gave her an excellent character for tidiness and virtue. She had been married several years, had had two children, both living and well, and had herself enjoyed perfect health until July, 1860. At that time she was nursing her youngest child, and at first attributed to this a feeling of weakness and a discharge from the private parts, which gradually increased in amount, until an abscess in one of the labia, of the size of a pigeon's egg, led her to visit the Dispensary, where she obtained a wash, which, as she states, stopped the running in two weeks. Some six weeks afterwards an eruption "like hives" made its appearance upon her face and arms, with a sore throat, and later in the fall and winter a succession of ulcers upon the extremities followed. For this she consulted a physician, who recognized the nature of the disease and obtained from the husband a confession of having given the

same to his wife. What treatment was employed at this time cannot be ascertained, but it seems at all events not to have been of much benefit, for during the following summer (that of 1861) the ulcers were so bad upon her body that she says she was unable to lie down. In February, 1862, she was seen by another physician, who sent her to Rainsford Island Hospital, where she remained five months. During her stay, iodide of potassium was constantly administered, and for a time the ulcers seemed disposed to heal, but the activity of the disease persisted in spite of this treatment, and in June she was discharged, in the same condition as when she entered. She continued to take the same medicine, however, after her return to the city, and she remained in the same wretched state until December, when I first saw her.

At that time she was much emaciated and very weak, and although but 33 years old she looked more like a woman of 50. Her skin was of a dark, Indian-red, and her face closely resembled one encrusted by the eruption of confluent smallpox. Upon the legs and arms there were numerous large and deep ulcers, so that every motion was difficult and painful. The scalp and nearly the whole body were thickly covered with a pustular eruption and crusts interspersed with formations of dense, white cicatricial tissue upon the seats of former ulcerations, the latter offering a marked contrast to the universal coppery hue of the rest of the skin, produced by long-continued congestion. The sub-dermal glandular system was of course in an indurated condition, but there had never been any affection of the periosteum or bones. The voice was faint and husky, but only a congested condition of the mucous membrane of the fauces was noticed.

She was directed to pursue the following course of treatment:—

Mercurial ointment, of the size of two large peas, to be rubbed into the following parts of the body in succession each night—the inner surfaces of both calves, the thighs, the abdomen, the chest, the upper arms and lower arms. The inunction to be continued until the above quantity is thoroughly rubbed into the skin. In the morning, the parts to be washed with soap and water.

To take, also, one of the following pills twice a day: ℞. Hydrarg. bichlorid., gr. i.; aquæ, q. s. pro sol.; ext. gent., q. s. M. Ft. pil. No. 32; and of tr. ferri mur., gtt. xv. 2 t. d.

To the ulcerated surfaces applications for half an hour, three times a day, of a solution of ferri et pot. tart., one part; water, sixteen parts.

In ten days there was a marked improvement in the appearances upon the skin. Many of the crusts had fallen off, exposing a healthy surface, and the large ulcerating surfaces upon the limbs were rapidly contracting. The pills were then omitted, but the progress towards recovery continued rapid and uniform; a sore mouth during the third week, which was troublesome for a few days, but which

yielded promptly to a wash of chlorate of potash, being the only unpleasant symptom developed. The inunction was nevertheless still employed, but to a less extent, for several weeks longer. In six or eight weeks all the ulcers had disappeared, and the skin was whole for the first time for two years. Motion was restored to the limbs, and strength and flesh were rapidly regained.

December, 1863.—At the present time, Mrs. —— is a well-dressed, nice-looking woman, and for nearly a year has enjoyed perfect health. On close examination, the skin of the face resembles a section of so-called nutmeg liver, owing to the punctiform deposition of dark-red coloring matter and minute formations of cicatricial tissue. The skin over the whole body is likewise discolored, and the cicatrices, which are larger and of irregular shape, occupy about one third of its superficial area.

Case II.—Mr. —— came to consult me Sept. 15th, 1863. He had acquired the disease by an infected chancre in June of the previous year. For the cutaneous appearances and a sore throat which followed, he placed himself under the care of his family physician, in a neighboring town, who gave him iodide of potassium. The symptoms continued, notwithstanding its use, and in the autumn a serious iritis made its appearance, which kept him within doors nearly all winter. In the spring, finding himself little better, the skin and eye still being the parts actively affected, he went to New York and consulted a celebrated syphilis doctor, who prescribed bichloride of mercury. Under this treatment the eye was restored to its former condition in a short time, but it seems not to have been used with sufficient thoroughness to cause the entire disappearance of the cutaneous appearances. During the summer, he continued to take, alternately, the bichloride and the potash salt, but with no decided effect, and in August he went to Sharon, where he remained a few weeks, using the sulphur baths freely, together with the iodide of potassium internally. The disease, however, seemed to be stimulated to a fresh activity by this treatment, and, growing weaker, he returned home and consulted me.

He was a man of a strong constitution, who had spent a prosperous life of great activity. He was of a very restless disposition, and his face wore a constant expression of anxiety, induced by the fear that the nature of his disease might be recognized by every person he met. The previous 46 years of his life had been passed in perfect health. His face was covered with numerous, large, red, acniform blotches, all of which were indurated, and several of which were in a condition of superficial ulceration. His back was thickly sprinkled with round pustular nodules, with which were interspersed several unhealthy-looking ulcers, which had penetrated deeply into the cutis. Upon the limbs were three or four large ulcers, one or two inches in diameter. The periosteum was affected at several points over the anterior surface of the tibia, giv-

ing rise to painful prominences of considerable size. The mucous membrane of the throat was in a healthy condition. The glands behind the ears, by the side of the olecranon and in the groin, were indurated. He was obliged to walk with a cane, and was in a very nervous and weak state, although the functions of the body were performed in a satisfactory manner.

The following course of treatment was advised:—

℞. Ferri et pot. tart., ʒ i.; aquæ, ʒ viii., ʒ i 2 t. d.

℞. Ferri et pot. tart., ʒ i; aquæ, ʒ ij., as dressing to ulcers, 2 t. d.

℞. Hydrarg. bichl., gr. ij.; glyc., aq., aa ʒ ss., for twenty minutes to blotches on face 2 t. d.

℞. Iod. pur., pot. iod., aa ʒ i.; glyc., ʒ ss., to nodes every night.

℞. Pot. chlorat., ʒ i.; aq., Oi.; syr. rub. idi., ʒ i., as a gargle four or five times a day.

Mercurial inunction every night in the manner described in the previous case. In this case, however, the treatment by inunction could be more systematically carried out, and accordingly he was directed to take a warm bath at night before using the ointment, and to lie in bed under heavy blankets three hours every morning beyond his usual time of rising. The diet was restricted to plain meats, milk, bread and fresh fruits, and he was advised to remain within doors.

On the 26th, ten days after the treatment was begun, the elevated nodules upon the face had diminished greatly in size and intensity of color, and all the ulcers were completely healed over. The nodes, also, were much flattened and no longer painful. Hope and strength were nearly recovered, and the appetite was excessive. As the teeth had become somewhat tender, it seemed best, in consideration of the fact that he had already taken mercury, to discontinue the inunction for a short time.

October 5th, the slight soreness of the mouth had entirely disappeared, and the ointment was directed to be resumed every third night. The strength was still greater than when last seen, and the periosteal affection was hardly to be detected.

October 15th.—One month from the day on which he was first seen there remained no other sign of previous disease than the discoloration which still remained from deposition of pigment in the sites of the old ulcers, and on that day he sailed for Europe.

These cases are presented to the Society as illustrative of the ease with which long-standing cases of syphilis yield to mercury, and of its superiority to iodide of potassium in the general treatment of the disease; also of the advantages offered by the inunction cure in point of rapidity of action and safety from salivation and cachexia, even in very debilitated states of the system.

ON REFLEX HEMIPLEGIA.

By Thomas Palmer, M.D., London.

Although reflex paraplegia is a sufficiently well recognized and described complaint, and has met with special attention from Dr. Brown-Séquard and others, reflex hemiplegia has not, so far as I know, been equally well studied or recorded; and yet no one, I apprehend, will doubt its existence, or deny its at least equivalent importance. While distinctly mentioning reflex hemiplegia, and giving two or three illustrative examples in his Lectures on Paralysis, Dr. Brown-Séquard has devoted a comparatively small space to the consideration of this interesting and important affection. In the ordinary class blooks and authorities I have been unable to find its due place assigned to it as one of the kinds of hemiplegia that the practical physician must be prepared to meet and deal with. In Mr. Todd's admirable and minutely-defining Lectures on Hemiplegia, I have been unable to recognize a picture of this variety of the disease. Dr. Graves, in his Clinical Lectures (vol. i., p. 520), doubtfully indicates it, with, however, the differentiating condition of "with symptoms of general determination of blood to the head." Elsewhere I have only found isolated cases of it. Mr. Langston Parker, in his work on Disorders of the Stomach, gives a perfect case. A lady suffering from dyspepsia was seized with hemiplegia, which immediately disappeared on the action of purgatives bringing away pitchy stools. Mr. Austin, in his excellent "Practical Account of General Paralysis," states that persons laboring under that disease in connection with insanity, are not unfrequently seized with sudden hemiplegia, which can be almost immediately relieved or removed by purgative enemata, which bring away scybala (p. 52). These cases, however, are not those the ordinary physician is likely to encounter, and, occurring in patients otherwise peculiarly paralyzed, are less likely to embarrass. Dr. Handfield Jones, in the Sydenham Society's "Year Book" for 1861, quotes a case of hemiplegia with convulsions, caused by an insect in the ear. Having met with an instructive case of this kind, which was admirably illustrated by a subsequent ailment of another aspect in the same individual, I venture to think it worth recording.

A. B., aged 63, a house-agent, save for annual aggravations of chronic bronchitis, in good health. Temperate; free from rheumatism, gout, or constitutional syphilis; no albumen in urine; has no teeth, natural or artificial, yet eats meat. For years has suffered much from business anxieties.

April 4th, 1859.—Having had no fit or premonitory symptom, he was suddenly seized with hemiplegia of left side while walking from one room to another before breakfast. He was seen within a few minutes; was pale; looked dull and bewildered, and as he sat on the chair sank down to the paralyzed (left) side unless support-

ed. The muscular paralysis was complete in extent, though a small amount of feeble motion could be effected; mouth drawn to the opposite side; fluids taken dribbled partly out of the paralyzed angle; speech thick and indistinct; muscles relaxed; sensation and consciousness unimpaired. I regret that my notes do not state to which side the tongue was protruded, or the condition of the pupil. Pulse 90, excited; tongue furred at base. He was laid horizontal; cold applied to his (bald) head, and four grains of calomel immediately given. In two hours marked improvement was perceptible, no other means or remedy having been used. The bowels acted two or three times. He expressed himself as feeling much better, and had regained a considerable amount of power over his leg and arm. Six leeches, ordered at the first visit, were now applied to the temples (I did not then see the exact nature of the case); no stimuli employed.

The next day he could walk about the room, help himself with the affected arm, and when speaking deliberately, could articulate distinctly; when talking at all quickly, his words stumbled over one another now and then.

In four days no paralysis remained; he was merely weak. Salines and a few doses of aperient medicine were the only additional remedies employed.

For four years he continued well, save for his annual attack of bronchitis. All this time, however, his business anxieties went on, and he still ate meat with toothless gums.

Early in 1863, he began to have a jerk with the commencement of each inspiration (diaphragmatic); then to awake at four o'clock every morning with a sense of fright and restlessness; thoughts not under his control. Gradually this increased; he was compelled by unbearable restlessness and oppression to jump out of bed the moment he awoke, and walk about the room for an hour or more, after which he could usually get an hour or two of troubled sleep. Now his mind became enfeebled; he could not bear to hear or think about the most trifling details of business; it threw him into a state of agitation, excitement, and sense of impending death or insanity, that was terrible to his friends. Then his digestion gave way, and every meal, unless of the weakest and lightest food, gave rise in about half an hour to severe paroxysms of nervous dyspepsia. Altogether, his condition was truly wretched. Marked, and, for a time, complete relief was afforded by almost any narcotic, notably by morphia or chlorodyne, but after a few days each would lose its effect, and leave him worse than before. An ounce of gin would at most times give him a few minutes' respite. All this while his tongue was perfectly natural, save for a small triangle of yellowish fur at base at first; bowels acted regularly every day, unless confined by narcotics; skin cool; pulse full and excited at the beginning; temporals acting rather strongly; head hot; heart free from

all discoverable disease; no arcus; no albuminuria; chronic bronchitis rather worse than usual. The manifestations of the affection were thus obviously those of cerebral irritation, and, I have no doubt, the analogue or alternative of his past hemiplegia. To relieve this urgent suffering a variety of remedies were used—sedatives, narcotics, tobacco-smoking, tonics, antispasmodics, stimulants, repeated aperients, complete rest of mind and body, all practically to no purpose; finally a three-grain dose of calomel, followed by rhubarb. Sudden and complete relief followed this; but in a few days he was as bad as ever. Dr. Goolden was then called in, and expressed his opinion that the symptoms were due to a loaded colon and liver; he ordered a larger dose of calomel, to be followed by a powerful cholagogue of sulphate of manganese and sulphate of magnesia. The effect was magical; in a few hours these brought away a large quantity of very offensive fæces, and the patient experienced complete relief. This time it was permanent; he could now sleep, eat, drink, think. A set of artificial teeth and a trip to the country set him up, and to the present time (December) I have heard nothing of him.

Viewed by the light thrown on it by the second seizure, the transient hemiplegia of 1859 will obviously be seen to have been reflex. The irritation set up by a colon loaded with unhealthy fæces, and a liver loaded with unhealthy secretion, transmitted to a brain wearied and worried by long-continued anxieties, overtasked its powers (probably, through the vaso-motor nerves, altered its supply of blood), and hemiplegia followed. It would be easy, by comparing the two attacks, their history, juvantia and lædentia, to make more clear the identity of their causation, but space does not permit. In passing, one cannot help remarking the beneficence of the arrangement whereby reflex irritations of the spinal cord so often produce paraplegia, paralysis of both lateral halves of that nervous centre, while similar irritations conveyed to the brain produce usually only hemiplegia, paralysis of the functions of only half, leaving the other hemisphere to carry on life and retain intellect. It will, perhaps, be said that this form of hemiplegia is only a symptom, and not worth making so much of. In reply I would observe that no hemiplegia is more than a symptom, and that if we are habitually and sensitively alive to the fact that any doubtful case of this form of paralysis may possibly have its source in an easily removable irritation, we now and then may be able to give speedy relief to an alarming and most distressing ailment. Further, it is an important practical question, how far irritation of so delicate an organ as the brain, sufficiently active to produce an extensive palsy, may, by default of relief for an extended period, cause structural and incurable mischief. Physiology affords strong reasons for thinking such an event probable.—*London Lancet.*

THE INFLUENCE OF INTERMARRIAGE BETWEEN NATIONS UPON THE TEETH.

THE importance of the subject concerning which we propose to write the present article, is only equalled by the absolute dearth of information that exists in reference to it. The physical results of interrelations between different nationalities have long enlisted the attention of scientific men, both generally and specifically, but never in reference to the point upon which we propose to touch; and we have, therefore, a natural diffidence in approaching a subject when we may be considered as groping in the dark for the first principles.

It will, doubtless, be readily admitted by all reflecting minds that, as a rule, the teeth of the American people are possessed of less vitality, more frequently decay, and are more generally of irregular and abnormal growth, than those of any other civilized nation.

This fact cannot reasonably be attributed to climatic influences, because the Indian tribes all over the continent are noted for the beautiful condition of their teeth, their health, and regularity, while they have for generations been subjected to the same influences. Neither can it be attributed, in any great degree, to our mode of living, because in that respect we do not differ widely from other civilized nations. The question then arises, What is this prolific cause from which occur such evil and dangerous results? We desire to bring the attention of the profession to this question, with the hope of eliminating such facts as their experience may have collected having reference to it.

When we consider to what an enormous extent our population has always been made up by an aggregation of individuals from all parts of the world, intermingling so intimately by association, that blood relationships are constantly being formed with natives of every portion of the globe, we cannot but think that this condition of things must necessarily exercise a vital influence over both our physical and mental systems.

That this influence cannot be over-estimated, is proven by the peculiar characteristics resulting from an intermarriage between the negro and the white, as seen in the mulatto, whose physical capacity is so greatly depraved when compared with that of either of his progenitors; and by the same results from the union of the native Indian and white, whose "half-breed" offspring are without the physical qualifications of either.

It is, of course, well known that the conformation of the jaw differs widely in different nations. The German jaw, for example, will average one fourth wider than that of the American. Is it not reasonable to suppose that when this formation comes to be allied to one entirely different from it, the result must be what any departure from nature's laws will necessarily induce, viz., deformity or abnormal structure? For example, from the combination of the

large jaw with teeth proportioned to it, with the small jaw and small teeth, why might we not have in the next generation, perhaps, the small jaw of the one, crowded with the large teeth of the other, and *vice versâ?*

We throw out these questions for information, and we desire to have them answered. We have considered this subject seriously, and what experience we have had leads us to believe that these influences to which we have alluded are under-estimated in our consideration of the causes of decayed and irregular teeth. We trust we shall hear from the profession in reference to the hints we have thrown out, and our pages are open to anything touching them.—*New York Dental Journal.*

CULTIVATION OF LAVENDER.

By Charles W. Quin, F.C.S.

Every pharmacist who visited the International Exhibition of 1862 will remember the neat case of pharmaceutical preparations shown by Mr. W. Ransom, which won for him not only the well-deserved prize medal "for pharmaceutical extracts, essential oils, and dried herbs of superior quality," but, in addition, the private commendation of some of the leading pharmacists of Europe and America.

It was, therefore, with great pleasure that one day, just before the lavender harvest commenced, we accepted a long-standing invitation from this gentleman to visit his extensive farms and factories at Hitchin, in Hertfordshire. Choosing a cool day, we rattled down by the Great Northern Railway, through pleasant meadows and fertile fields of browning corn, to this quaint little old town, which lies embosomed amongst the beautifully-wooded Hertfordshire hills. The spot is particularly well situated for this description of farming; for, owing to the hilly nature of the district, the physic farmer has, within a small compass, many different kinds of soil at his disposal, embracing almost all the descriptions suitable to the growth of plants widely differing in their natural habitat. Arriving at the pretty little station, we find Mr. Ransom waiting to receive us. He first conducts us to his private house, which is situated on a lofty eminence overlooking a large tract of country, consisting of low wooded hills and fertile valleys. Lingering for a while to examine and admire the most magnificent fernery we have ever seen, containing upwards of 150 different species growing in the most healthy and luxuriant condition, we sally forth on our ramble, which, Mr. Ransom warns us, will be a long one; for not only are the fields themselves of great extent, but, owing to the exigencies of soil and situation, several of them are separated by large intervals. Our first visit is to a large field of lavender *(Lavendula vera)* measuring upwards of ten acres. It is in full bloom, and it

would take the pen of a Ruskin to give our readers any idea of the beauty of the sight. The long spikes of purple flowers waving backwards and forwards in the gentle wind, interspersed with the delicate greyish-green of the plants themselves, and patches of golden brown soil showing between them now and then, make up a picture worthy of the pencil of our great colorists. Mr. Ransom, however, recalls us from our reverie by telling us that he has over forty acres of this plant at present under cultivation. The lavender plant seems to thrive better on English soil than on any other. It is grown principally at Mitcham, in Surrey, and at Hitchin. At one time it was supposed that it would only come to perfection in the former locality; but during the last half century Mr. Ransom and Mr. Parks, of Hinchin, have proved that the soil and character of their farms are even still more suited to its growth. It seems to require a sandy loam, neither too stiff nor too gravelly, overlying the chalk, and measuring from eighteen inches to two feet in depth. The plant is propagated from slips cut from the old plants, which are allowed to strike out for twelve to eighteen months, during which they are carefully slipped, in order to give them a bush-like form. They are then planted out from two to three feet apart, in rows, with a space of three or four feet between them, and clipped all through the second year to strengthen them. The third year they are allowed to flower, and they continue to bear until they are seven or eight years old. The flowers, from which the oil or otto is distilled, are gathered towards the end of July or beginning of August, according to the season. The present season has not been a good one, the spikes of the flowers being only half their normal length. The English lavender, *Lavendula vera*, is indigenous to Persia, the Canaries, and the south of Europe. The reason that English oil or otto of lavender enjoys so high a reputation appears to be, that not only is the plant cultivated with the greatest care, but the otto itself is distilled by steam heat at a temperature so low as to avoid all possibility of its being contaminated with empyreumatic odors. MM. Milne Edwards and Vavasseur, in their *Manuel de Matière Médicale*, enumerate three species of lavender—*Lavendula vera*, *L. spica*, and *L. stœchas*—all of which possess stimulant and tonic properties. The oil of the *Lavendula spica*, which is exclusively cultivated in France, is often offered for sale as true oil of lavender. Its odor is not nearly so pleasant, and it is only one tenth as strong as the true article. Burnett tells us that the oil of *Lavendula spica* is the more pleasant of the two. No doubt, however, Burnett means the oil of *Lavendula stœchas*, or Alpine lavender, which is also a native of France, and which has an exceedingly delicious odor, but quite distinct from that of the real otto. The ancients gave the plant the name of *lavendula* from employing its flowers and leaves to aromatize their baths, and to give a sweet scent to the water in which they washed. Although pos-

sessed of stimulant and tonic properties, oil of lavender is but little used in pharmacy. Its principal use is in the manufacture of the far-famed old English perfumes—essence of lavender and lavender water. When properly made, the essence ought to consist only of the otto or oil, dissolved in rectified spirit and rose-water; but many makers add other scents, which certainly have the effect of detracting from the peculiarly refreshing character of this odor. The ordinary essence is made by dissolving the otto in rectified spirit, in the proportion of six ounces to one gallon. The best essence is distilled from a mixture of otto, four ounces; rectified spirit, five pints; rose water, one pint. The best lavender water consists of a mixture of four ounces of English oil of lavender, three quarts of rectified spirit, and one pint of rose water. The method of making the otto or oil is simple enough. The flower-spikes are put into a still, containing sufficient water; a gentle steam-heat is applied, and the watery vapor rises, carrying with it the volatile oil contained in the flower-heads. The oil is afterwards separated from the cool distillate by decantation. A small amount of essential oil is also contained in the leaves and stalks of the plant, but it is so small in quantity and inferior in quality as not to be worth the trouble of extracting. A hundred-weight of the flowers yield, by distillation, from twenty-eight to thirty-two ounces of essential oil. The lavender plant is in its primest condition when it is about four or five years old. An acre of such plants will give, in good seasons, flowers sufficient for six or seven quarts of oil.—*Chemist and Druggist.*

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, JANUARY 14, 1864.

THE PRESENT POSITION OF THE SURGEON-GENERAL.—It is now some months since the active and able Surgeon-General of the United States was politely relieved from his responsible post at Washington and sent on a tour of inspection to the Southern coast. Surprising as such a move seemed to all who were conversant with the very arduous labors of his office and the immense responsibility devolving upon him, yet being fully aware that there were matters in the Department of the Gulf which could hardly help being improved under the direct eye of the master, we could not avoid thinking that the intimations which from time to time appeared in the columns of the daily press and in the pages of unfriendly medical journals, that this tour of duty was an implied censure upon his administration, were in the main merely the expressions of private malice or professional jealousy. We were unwilling to believe that a public officer who had brought order out of such chaos, who had built up such a magnificent system of military hospitals, and had shown himself equal to their maintenance,

at the same time that the vast armies in the field were kept constantly provided with everything that it devolved on him to supply—who had so fearlessly acted up to his ideas of duty in restricting the use of certain powerful drugs which he knew had been recklessly administered to the great injury of the sick—whose whole course since he has filled the office of Surgeon-General has brought so much honor to himself and to the country—we could scarcely believe that such a man could be quietly put out of the way while charges of the gravest character against him were to be examined, without giving him the least opportunity for explanation. Recent events, however, have forced the conviction upon us that it is even so. Nevertheless, it does not appear, up to the present time, that there is the first particle of evidence against him of malfeasance in office. The gravest charge which has been brought against him seems likely to be only a malicious misconstruction of what should be regarded as evidence of his desire that nothing should be wanting for the most thorough and satisfactory provision for the medical wants of the army. He has made purchases of medical supplies, it appears, from reliable and honest dealers, at higher prices than were asked by other dealers for what were ostensibly the same things. But then the difference was, that he could rely on the good quality and genuineness of his purchases in the one case, but not in the other. Of course, it was not difficult for the disappointed speculators to cast suspicion upon this honest course of the Surgeon-General, and to intimate that he had personal reasons for giving more than the market price. Such is the charge, if we are rightly informed, to substantiate which this able officer is sent to the extremes of our territory, leaving his enemies a fair field to work in behind his back. We wait the action of the Government, but it does not yet appear that the inquiry has elicited any facts other than we have mentioned. In the mean time Dr. Hammond has been again despatched to a distant post, where he is "waiting orders," while his important duties at Washington are left in inexperienced hands. We commend the following circular, which we find in the New York *Medical Times*, to the careful consideration of our readers. It has received the signatures of a number of the leading members of the profession in different parts of the country :—

"CIRCULAR IN BEHALF OF THE SURGEON-GENERAL.

1863.

"SIR,—Your attention is most respectfully invited to the present condition of the Medical Bureau of the War Department.

"Under the Act approved April 16th, 1862, the administration of the Medical Department was intrusted to a Surgeon-General, with the rank of a Brigadier-General. An Assistant Surgeon-General was also appointed with undefined duties, eight Medical Inspectors and a Medical Inspector-General, charged, under the direction of the Surgeon-General, with 'the supervision of all that relates to the sanitary condition of the army, whether in transports, quarters, or camps, and of the hygiene, police, discipline, and efficiency of field and general hospitals.'

It is fair to presume that, in selecting Dr. William A. Hammond for Surgeon-General, the President and Senate were governed by good and sufficient reasons. Among those was, no doubt, the knowledge that he was a man in the prime of life, of strong constitution, and active and temperate habits; of liberal views and large and varied scientific acquirements, and of universal good repute.

"Since the first of September, however, the Surgeon-General and Inspector-General have changed places; the latter is put in charge of the Medical Bureau, uncertain what day his plans and policy may be interrupted, while the former is, ostensi-

bly at least, making long tours of inspection in the more remote fields of military operations. Under ordinary circumstances, this might be of little moment, but the present case has peculiar features.

"About the first of July, 1863, a special commission was appointed to investigate the conduct of the Medical Department. The precise objects of inquiry and nature of their instructions were not made known. It was an unfortunate circumstance that a person was placed at the head of that Commission whose relations with the Surgeon-General were known to have been unfriendly from a time when A. H. Reeder was one of Mr. Buchanan's Governors of Kansas, and certain land schemes in that unfortunate territory were exposed and thwarted by the late Senator Douglass, Gen. (then Capt.) N. Lyon and Dr. Hammond. It was naturally expected that this Commission would visit the Medical Bureau, inspect its books and records, examine the organization of the department, and inquire into its principles and rules of action; and, furnished with this outline chart, proceed to the investigation of the necessary details. This was not their course. They sedulously avoided the Surgeon-General and his office, and the most important sources of information. They visited other offices freely, where only arithmetical results were filed, and offered liberal compensation to one of the Second Auditor's clerks to furnish them with data unofficially in odd hours. The offer was promptly declined. They called for, and were furnished with, voluminous reports, filling many hundred pages with mere arithmetical figures, from which no idea could be gleaned, except what every one knew, that large supplies had been bought and much money expended. These reports might show that large quantities of a given article were bought from a particular person, but did not show that the person in question was the only one in the United States having that article for sale at the time. Vast purchases were sometimes made suddenly, and with unavoidable appearance of precipitancy. The Surgeon-General should have an opportunity to show what connection these had with the great victories of the West, the Peninsular campaign, the retreat of General Pope, or the battle of Antietam. So far as expenditure of money is concerned, the most extravagant and irregular disbursements are constantly and necessarily made under authority of commanding generals after great battles. Such outlay has always been sustained by the Secretary of War, and the wisdom and justness of his decision we do not question. But the Commission asked for no explanations, and repeatedly refused to listen to them when offered. In their secret sessions at Washington, and their visits to other cities, they no doubt found enough of disappointed speculators to fill their willing ears with tales of their own wrongs, and the frauds of rival dealers. What may be the judgment of this Commission, after a session of five months, it is only permitted us to guess, but there is no reason to expect that it will be favorable. Already a portion of the public press, every ready to bay from afar at the bark of a prominent man, is attempting to prejudice the public mind by circulating vague defamation.

"In the midst of these investigations, as if to prevent the possibility of interference or explanation, the Surgeon-General was despatched to the South Atlantic and Gulf Coasts, the Mississippi River, and the Cumberland, ostensibly to perform those duties for the sake of which the office of Medical Inspector-General had been created. Surgeon Joseph R. Smith, who had been for thirteen months his principal aid, and was presumed to be familiar with all his official acts, was banished to Little Rock, that he might not give testimony in his favor.

"The administration of Dr. Hammond fell in a period of great events and arduous labor. The armies under Gen. McClellan and Gen. Pope claimed a large share of his attention, and often his actual presence, while permission to visit the field of Western operations was denied him. The whole medical service of the United States forces had to be reorganized. The extensive hospitals throughout the entire field of military operations, of which those on the Chesapeake, at Washington, Annapolis, Philadelphia, and New York, may be taken as examples, were to be planned, built, organized, and supplied. Large purchases had to be made on the shortest possible notice, under circumstances which made the promptness of supply as important as the character of the vendor. Be it also remembered that he was oftened straightened for funds, and several times without a dol-

lar at his command. For, however liberally Congress might appropriate money, none of it was at his immediate disposal. It could only be reached by a complex system of requisitions, liable to be blocked and delayed at every step. Hence, he might sometimes be compelled to order purchases at a disadvantage. That in such a state of things, men would occasionally arise, base enough to attempt to defraud the nation in the quality or the price of their wares, was to be expected—that they sometimes succeeded, is not improbable, although not proved. But this proves neither incompetency nor corruption in General Hammond. On his appointment, he found all the mechanism of supply adapted to a peace establishment. Time and leisure were necessary to learn all its details, and discover its defects. Of those cases at which rumor now mostly points, some were coeval with the war, some were inevitable under existing laws, and others were instantly discovered and corrected by General Hammond. Should the records and correspondence of the Surgeon-General's office at Washington ever be examined, it will be found that vigilance and impartiality presided there. It is known that the most stringent orders were issued to Medical Purveyors in regard to the standing and integrity of the persons with whom they dealt, and the quality and prices of supplies. Complaints were met by investigations, and, if found just, with quick and decisive remedies. When, in the fall of 1862, malversation was reported in the Purveying depot at Philadelphia, the Inspector-General, and subsequently Medical Inspector Coolidge, were sent with ample powers and instructions to investigate the whole subject of the purchase and issue of supplies. Other investigations were had from time to time as occasions arose.

"The orders and reports in these cases are authentic documents for the conduct of the Department. There are numerous instances where positive orders were given not to buy of particular houses, whose prices, or the quality or measure of whose goods was found objectionable; none will be found where patronage was restricted to favorite parties. But in these expositions of errors and frauds by the Surgeon-General, and the chagrin of unsuccessful competition, a multitude of enemies were made, but too eager to testify before any tribunal. Great importance is attached to this element of disaffection, in accounting for the present state of affairs, and almost as much to a feeling of jealousy among some of the old officers of the regular service. It is not to be wondered at, that some of the latter, accustomed to regard length of past service more than present efficiency as constituting the only title to promotion, should feel hurt at seeing a man selected for knowledge of military hygiene, and not past the meridian of life, promoted over their heads, and should therefore endeavor to spread their disaffection like a contagion. It is fully believed that in this way false representations have been made to the Secretary of War, which have pre-occupied his mind with an erroneous impression of the facts.

"What is proposed, then, is very simple. If Dr. Hammond has not forfeited his right to fill the position for which he had been selected by the President of the United States, he should be reinstated immediately. If, on the other hand, his honesty or competency is questioned, it is due to the President, the Senate, and the People, that this should be made known by the results of a formal procedure, and not from an investigation conducted by a secret, *ex parte*, and anonymous commission. Let the accused have the same hearing as his accusers. Let the examination be as severe and searching as you please, so that it is but fair and open.

"Your co-operation, Sir, is respectfully solicited in obtaining this measure of justice. Be the decision what it may, all good men will then accept it without a murmur; and none with a better grace than the Surgeon-General himself. It is important that justice be done to General Hammond; but it is immeasurably more important that the habit of justice be maintained among the American people.

"Believing that Surgeon-General Hammond has administered the complicated affairs of the Medical Bureau with a degree of honesty, scientific ability and success, that should challenge the admiration of Congress, the people, and the medical profession of this and foreign countries, we desire to infuse into our appeal every principle which should actuate those who heartily wish to see a just record

made, not only of our National military successes, but of the triumphs in military hygiene, and the highest forms of pure philanthropy."

(SIGNED)

Since the above was in print, we see by the public papers that the President has ordered a court-martial upon the Surgeon-General. His friends can ask nothing more than this. We await the result with entire confidence that he will be honorably acquitted from the charges that have been brought against him.

DEATH OF DR. JOHN C. DALTON.—It is our melancholy duty to announce this week the death of an honored member of the profession of this city, Dr. John C. Dalton, at the mature age of 68. This sad event took place on Friday, the 8th inst., after a week of severe suffering. The primary cause of his death, as appeared at the autopsy, was rupture of the left kidney, produced by a fall on the ice, on the 2d inst. Severe symptoms came on in a few hours, which only yielded to the persistent administration of sulphuric ether for twenty four hours. His condition then became more promising, but double pneumonia supervened and brought a sudden close to his useful and honorable career. We know we express the feeling of all who knew Dr. Dalton, that his death comes very near to an unusual number of hearts. His kindly, genial nature warmed and charmed all that were once brought within its influence. Advancing years had not chilled, but seemed rather to have expanded the generous outflow of his sympathies. The qualities of his mind were as engaging and attractive as the gentleness of his heart, and made him a most welcome companion to all. He was a signal example of the highest type of the medical profession—a representative of all its purest and noblest qualities. Want of space compels us to defer to another week the fuller notice of our deceased friend, which we are prompted to give, as well as a friendly communication from a professional brother.

BOSTON PHYSICIANS AND THE AMBULANCE SYSTEM.—We find the following paragraph in the *American Medical Times* of the 2d inst. :—

"There are several gentlemen from Boston now in Washington to urge upon the Government the adoption of a uniform ambulance system. Their object is an excellent one, but they are a little too much disposed to push their own ideas to the rather uncourteous neglect of the at least equally intelligent convictions of others, and thus tend to diminish the weight of the influence of the profession with Government. Now, the organization of the ambulance system for the Army of the Potomac by Dr. Letterman, its Medical Director, promulgated and inaugurated in General Order No. 85, August 25th, 1863, by Gen. Meade, is the best and only practical organization feasible; it has been thoroughly studied out and tried under the advice of the Surgeon-General and the Sanitary Commission, and all that is now wanted is to secure its adoption at Headquarters at Washington for the whole military force of the United States."

We regret to have to say that the first part of this statement is entirely incorrect. None of the medical gentlemen of Boston who have been active in urging the establishment of an ambulance system, have been recently or are now in Washington for this purpose. So far as we learn—and we have conversed with some who have been most active in forwarding this movement—the plan of Gen. Meade meets with their most cordial approval. We took occasion ourselves to commend it most heartily a few weeks since, and published an abstract

of it. Our cotemporary does Boston, which may claim the credit of originating this benevolent enterprise, great injustice in the above statements.

The buildings erected in Philadelphia, in 1853, for the Pennsylvania Medical College, at a cost of between fifty and sixty thousand dollars, have lately been sold to the Eclectic Medical College of that city. The withdrawal of Southern students at the commencement of the rebellion was the cause of the extinction of the first-named College.

The number of deaths in San Francisco, Cal., during the month of October, was 236, being the largest monthly mortality ever recorded in that city. Only 18 of this number are reported as being caused by consumption.

A convention of the dentists in the towns and cities of the Merrimac Valley, held at Lowell in October last, resulted in the formation of a society under the name of the *Merrimac Valley Dental Association.* A constitution was adopted, and officers for the current year were elected. Dr. A. Lawrence, of Lowell, is President; and Drs. D. K. Boutelle, of Manchester, N. H., S. H. Elliott, of Haverhill, Mass., and E. G. Cummings, of Concord, N. H., are Vice Presidents. The next meeting takes place in Lowell in May next.

Prof. M. K. Taylor, of the Medical Department of the Iowa State University, recommends, in the *Chicago Medical Examiner,* the external use of ice in the treatment of affections of the throat. He states that he has used it to great advantage in inflammatory and spasmodic croup, diphtheria, tonsillitis, laryngitis and œdema of the glottis. The ice is applied over the larynx, a piece as large as a hen's egg at a time, in a single thickness of oiled silk, with several thicknesses of flannel over it and around the whole neck.

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, JANUARY 9th, 1864.

DEATHS.

	Males.	*Females.*	*Total.*
Deaths during the week - - - - - - - -	64	59	123
Ave. mortality of corresponding weeks for ten years, 1853—1863,	41.5	37.8	79.3
Average corrected to increased population - - - - -	00	00	86.77
Death of persons above 90 - - - - - - - -	0	0	0

Mortality from Prevailing Diseases.

Phthisis.	Croup.	Scar. Fev.	Pneumon.	Variola.	Dysentery.	Typ. Fever.	Diphtheria.
19	9	3	16	0	1	2	3

COMMUNICATIONS RECEIVED.—The paper by Dr. V. W. Blanchard, of Vermont, is received, and will appear next week.

MARRIED,—At Woburn, 7th inst., Samuel Warren Abbott, M.D., Surgeon of the U. S. gunboat Catskill, to Miss Martha W. Sullivan.

DEATHS IN BOSTON for the week ending Saturday noon, Jan. 9th, 123. Males, 64—Females, 59.—Accident, 3—apoplexy, 2—asthma, 1—inflammation of the bowels, 1—congestion of the brain, 3—disease of the brain, 6—inflammation of the brain, 2—bronchitis, 2—cancer, 1—consumption, 19—convulsions, 5—croup, 9—cyanosis, 1—cystitis, 1—debility, 3—diarrhœa, 2—diphtheria, 3—dropsy, 2—dropsy of the brain, 4—dysentery, 1—scarlet fever, 3—typhoid fever, 2—disease of the heart, 2—infantile disease, 5—intemperance, 2—rupture of intestines, 1—disease of the kidneys, 1—lock-jaw, 1—congestion of the lungs, 1—inflammation of the lungs, 16—marasmus, 3—old age, 4—paralysis, 1—scalded, 2—srofula, 1—unknown, 6—wounds received in battle, 1.

Under 5 years of age, 46—between 5 and 20 years, 11—between 20 and 40 years, 19—between 40 and 60 years, 26—above 60 years, 21. Born in the United States, 89—Ireland, 27—other places, 7.